#### POWELL, GOLDSTEIN, FRAZER & MURPHY LLP

ATTORNEYS AT LAW

Sixteenth Floor 191 Peachtree Street, N.E. Atlanta, Georgia 30303 404 572-6600 Facsimile 404 572-6999

www.pgfm.com

PLEASE RESPOND: Washington Address Direct Dial: 202-624-3915 E-mail: kcameron@pgfm.com

1001 Pennsylvania Avenue, N.W. Washington, D.C. 20004 202 347-0066 Facsimile 202 624-7222

February 19, 1999

Ms. Magalie Roman Salas EX PARTE OR LATE FILED Office of the Secretary Federal Communications Commission The Portals 445 Twelfth Street, S.W. Room TW-A325 Washington, D.C. 20554

FEB 1 9 1999

CORE AS A CONSTRUCTOR OF CHICAGO

Carlotte Martiness of

Re:

Ex Parte

File No. 190-SAT-Lo1-97 ET Docket No. 95-18

Dear Ms. Salas:

On February 18, 1999 Ram Manohar, David C. Quam and I, on behalf of Inmarsat, met with staff members of the Satellite and Radiocommunication Division of the International Bureau concerning the above-captioned matter. Attending the meeting for the Commission were Thomas Tycz, Christopher Murphy, Karl Kensinger, Howard Griboff and Alex Roytblat.

The parties met to discuss various licensing and service rule options under consideration by the Commission in the 2GHz MSS processing round. During the meeting, Inmarsat expressed its view that a licensing approach that combines elements of option #2 and option #3 is the most desirable alternative. Inmarsat's plan calls for specific spectrum allocations for different systems and a periodic multilateral review process to monitor the growth of systems and their spectrum usage. The parties also reviewed the technical specifications of Inmarsat's Horizons system. Inmarsat's approach and Horizons' technical specifications are set forth in greater detail in the attached presentation.

An original plus one copy of this letter and attachments are being filed with the Secretary of the Commission for each proceeding pursuant with 47 CFR, Chapter 1, Section 1.1206 (b)2.

Sincerely,

4 lly inverse

For Powell, Goldstein, Frazer & Murphy LLP

Tom Tycz cc: Karl Kensinger Chris Murphy **Howard Griboff** Alex Roytblat ::ODMA\PCDOCS\WSH\117080\1

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File No. 190-SAT-Lo1-97 ET Docket No. 95-18

Table 2-3 (Concluded): Representative Mobile Satellite Service (MSS) System Characteristics

Category	Parameters	Inmarsat (Horizons)
Constellation	Orbit	Circular
	Inclination	GSO
	# Satellites	4; #1: 20° E, #2:
		110° E, #3: 170° W,
		#4: 90° W
	# Planes	1
	Satellite Separation	Function of which
		satellites considered
<u> </u>	Altitude (Km)	35,750 (nom)
Space Station	Antenna Type	Multiple Beam
Design		Antenna
	# Beams	120 to 300
	Polarization	LHCP
User Terminal	Antenna Type	Directional and
Design		Non-Directional
	Receive G/T (dB/°K)	-16 to -6
S-E Service Link	Access Scheme	TDMA
Parameters		
	Frequency (GHz)	Uplink: 1.980 –
		2.025
		Dnlink: 2.160 –
		2.200
	Modulation	



#### INMARSAT PRESENTATION TO FCC ON 2 GHZ LICENSING & SERVICE RULES

WASHINGTON D.C.,18 FEBRUARY 1999

# SALIENT FACTS ABOUT THE CURRENT SITUATION REGARDING 2 GHz MSS ALLOCATIONS

- THE 2 GHz MSS ALLOCATIONS HAVE BEEN IDENTIFIED FOR USE BY THE SATELLITE COMPONENT OF IMT-2000,
- THE FREQUENCY ALLOCATIONS IN REGION 2 ARE SIGNIFICANTLY DIFFERENT FROM THOSE IN REGIONS 1 & 3,
- ADMINISTRATIONS WORLD WIDE HAVE BEEN URGED BY THE ITU TO PLAN FOR TRANSITIONING OF FS SYSTEMS THAT PRESENTLY USE THESE BANDS,
- AN ERC DECISION ON HARMONIZED USAGE OF A PART OF THESE BANDS ALREADY EXISTS,
- FCC IS NOW EVALUATING VARIOUS OPTIONS FOR A SIMILAR EXERCISE IN USA,
- ADMINISTRATIONS ALL OVER THE WORLD ARE KEENLY WATCHING WHAT HAPPENS IN USA.



#### THE EFFECT OF DIFFFERING REGIONAL ALLOCATIONS

- THERE REMAINS ONLY 20 MHz OF COMMON GLOBAL SPECTRUM AT 2 GHz FOR MSS,
  - 1990-2010 MHz (E-s), AND,
  - 2180-2200 MHz (s-E),
- THE 2170-2180 MHz (s-E) GLOBAL ALLOCATION COULD BE PAIRED WITH 2010-2020 MHz (E-s) OF REGION 2 ONLY ALLOCATIONS OR 1980-1990 MHz (E-s) OF GLOBAL ALLOCATIONS,
- THE 2165-2170 MHz (s-E) REGION 2 ONLY ALLOCATIONS COULD BE PAIRED WITH 2020-2025 MHz (E-s) REGION 2 ONLY ALLOCATIONS.

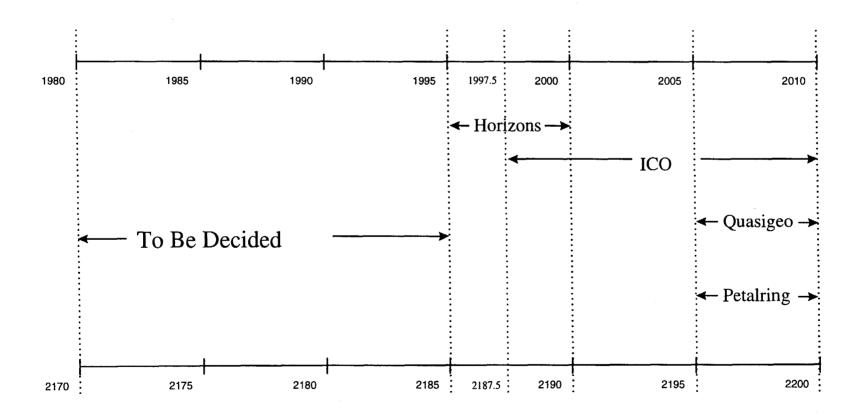


#### BASIC ELEMENTS OF PROPOSED INMARSAT APPROACH

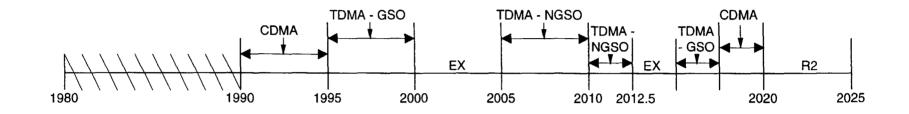
- SPECTRUM ALLOCATIONS TO ACCOMMODATE INITIAL OPERATIONS OF DIFFERENT TYPES OF SYSTEMS SHOULD BE IDENTIFIED,
- SOME EXPANSION SPECTRUM SHOULD BE IDENTIFIED TO ACCOMMODATE THE ADDITIONAL REQUIREMENTS OF GROWING SYSTEMS,
- A PERIODIC MULTILATERAL REVIEW PROCESS, INCLUDING A MILESTONE REVIEW MECHANISM, SHOULD BE ADOPTED TO MONITOR THE GROWTH OF SYSTEMS AND THEIR SPECTRUM USAGE,
- DIFFERENCES WITH THE ERC DECISION ON HARMONIZED USAGE OF 2 GHz BANDS SHOULD BE KEPT TO A MINIMUM.

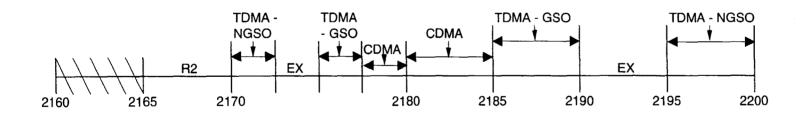


#### Summary of ERC Decision ERC/DEC/(97)03









INMARSAT PROPOSAL ON 2 GHz SPECTRUM SHARING OVER USA



## DETAILS OF PROPOSED INMARSAT APPROACH (I)

- THE 20 MHz OF GLOBALLY HARMONIZED SPECTRUM COULD BE ALLOCATED FOR GLOBAL MSS SYSTEMS AS FOLLOWS -
  - 1990-1995/2180-2185 MHz FOR CDMA,
  - 1995-2000/2185-2190 MHz FOR TDMA/GSO,
  - 2005-2010/2195-2200 MHz FOR TDMA/NGSO,
  - 2000-2005/2190-2195 MHz FOR EXPANSION.



### DETAILS OF PROPOSED INMARSAT APPROACH (II)

- THE ADDITIONAL PAIRED 10 MHz OF SPECTRUM 2010-2020/ 2170-2180 MHz, COULD ALSO SIMILARLY BE ALLOCATED AS FOLLOWS -
  - 2010.0-2012.5/2170.0-2172.5 MHz FOR TDMA-NGSO,
  - 2015.0-2017.5/2175.0-2177.5 MHz FOR TDMA-GSO,
  - 2017.5-2020.0/2177.5-2180 MHz FOR CDMA,
  - 2012.5-2015.0/2172.5-2175.0 MHz FOR EXPANSION.
- THE REMAINING 5 MHz OF REGION2 ONLY SPECTRUM i.e. 2020-2025/2165-2170 MHz, COULD BE RESERVED FOR REGION 2 SYSTEMS OR TREATED AS EXPANSION SPECTRUM.



#### DETAILS OF PROPOSED INMARSAT APPROACH (III)

- AN OPERATORS' MULTILATERAL REVIEW MEETING SHOULD BE HELD PERIODICALLY, SAY EVERY YEAR, TO -
  - MONITOR THE PROGRESS OF MILESTONE COMPLIANCE BY DIFFERENT PLANNED SYSTEMS,
  - REVIEW THE EXTENT OF SPECTRUM USAGE BY DIFFERENT OPERATIONAL SYSTEMS AGAINST THEIR ALLOCATIONS (THIS COULD INCLUDE SOME TYPE OF MONITORING IF CONSIDERED NECESSARY),
  - VALIDATE ANY ADDITIONAL SPECTRUM REQUIREMENTS OF DIFFERENT SYSTEMS IF AND WHEN ACCESS TO ANY PART OF EXPANSION SPECTRUM IS REQUIRED,
  - REVISE THE SPECTRUM SHARING ARRANGEMENT IF NECESSARY.



#### REASONS BEHIND INMARSAT'S PROPOSAL

- NO MSS SYSTEM IS CURRENTLY OPERATIONAL IN 2 GHz ALLOCATIONS - ALL OF THE SYSTEMS BEING CONSIDERED ARE STILL IN DIFFERENT STAGES OF PLANNING & IMPLEMENTATION,
- CLEAR CUT CONCLUSIONS ON THE FEASIBILITY OF COORDINATION, OR LACK THEREOF, FOR DIFFERENT CATEGORY OF SYSTEMS ALREADY EXIST,
- POST LICENSING COORDINATION WILL ALSO RESULT IN BAND SEGMENTATION FOR INCOMPATIBLE SYSTEMS BUT ONLY AFTER A LOT OF DIFFICULT BILATERAL NEGOTIATIONS,
- A REGULATED REGIME THAT PROVIDES FOR INITIAL OPERATIONS OF DIFFERENT TYPES OF SYSTEMS, AS ALSO FOR THEIR SUBSEQUENT GROWTH, WITH APPROPRIATE CHECKS & BALANCES ON USE OF SPECTRUM, WOULD FORM THE IDEAL SOLUTION IN SUCH A SCENARIO.



#### NO JUSTIFICATION FOR ANY LINKAGE BETWEEN DIFFERENT MSS BANDS

- DIFFERENT MSS BANDS HAVE DIFFERENT COORDINATION REGIMES THAT APPLY TO THEM,
- USAGE OF THE SO CALLED RDSS BANDS (1.6/2.4 GHz) HAS BEEN REGULATED BY AN A-PRIORY HARMONIZATION DECISION FIRST TAKEN IN US AND SUBSEQUENTLY ADOPTED IN CEPT,
- USAGE OF L-BAND (1.5/1.6 GHz), WHICH ACTUALLY HAD SEVERAL OPERATING SYSTEMS BEFORE COORDINATION WAS REACHED, IS REGULATED BY A MULTILATERAL COORDINATION PROCESS ADOPTED BY THE CONCERNED ADMINISTRATIONS AND THEIR MSS OPERATORS VOLUNTARILY,
- THUS MSS SYSTEMS IN DIFFERENT BANDS ARE OPERATING SATISFACTORILY ACCORDING TO THE ADOPTED REGULATORY REGIME,
- IT WILL BE INAPPROPRIATE TO LINK THE SITUATION IN DIFFERENT MSS BANDS.